

COLLECTING SHELLS IN A CORNER OF THE SIERRA NEVADA.

BY JAS. H. FERRISS.

Prospects along the southern border of Arizona in the summer of 1916 were a little warlike; thus myself and family, two of us, joined with Prof. E. E. Hand, zoological instructor at the Wendell Phillips High School, Chicago, in a vacation to California. The hikers of the Sierra Club were ready for their annual July tramp and we joined their ranks. At Bakersfield we dropped off for a day's collecting along the banks of the Kern river.

That night the club, 260 strong, was overtaken and no further opportunities for collecting were conveniently at hand until we arrived at the forks of the Tulle river the next evening. We left the railroad at Springville in Tulare county.

This conservation club of nearly 2,000 members, Jos. LeConte, jr., President, and Wm. H. Colby, Secretary, seems to feel it to be a part of their work to show the way to the California mountains, to make them accessible and popular, and in this until his death a couple of years ago, John Muir was their leader. The membership is principally Californians, San Francisco and Los Angeles predominating. Our own state was well represented in this outing, for there were sixteen of us from Chicago and Joliet.

These annual excursions show the way to good health, the big trees, the highest mountains and the great canyons and do much to make California attractive to the globe-trotter. We ascended the Kern river Canyon, climbed Kaweah Peak, Mt. Whitney and the Kearsarges, opened the Muir trail and crossed over the range down to Independence, Inyo county, in the Owen valley—a snowbank in camp every night but the last, when we needed it most.

It was a delightful journey with delightful people, and the rivers and snowbanks were crossed without accident. It was the seventeenth year under the Colby régime, and practice has made the arrangements so perfect there was no jar in the program. Next July we ascend the middle fork of Kings river.

After this month of collecting, fishing, music, opera and lectures with the Sierra Club we hit the trail for another month with H. D. Gill, one of our packers acquainted with every corner of the range. We gave other lakes and peaks of that vicinity a thorough combing, via Rae lake, down the south fork of the Kings river, returning by the Giant Forest, Mineral King, and Rattlesnake Gulch, and Volcano creek and the Cottonwood lakes, to have a better acquaintance with the golden trout, (*roosevelti*). I also dropped off at Las Vegas, Nevada, and picked up a few shells.

The opportunities for collecting with the Sierra Club were excellent. When the party moved it was but a ten-mile journey for the day. The packers with about 100 horses and mules carried our baggage, provisions and cooking-ranges. A dozen elderly people and the packers had riding horses, the rest of us men, women, boys and girls walked. There were five good cooks and several commissaries, and our only stunt in drudgery was to pick out a soft spot in the timber at evening, unroll the sleeping bag, and roll it up again at five in the morning. At the most attractive points camp was made for a day or two, or sometimes longer.

In this portion of the Sierras at least, the snails cling to the meadows and wet ground about the springs. We had no success in the rocks or timber. Strangers to the habits of California snails, much time was wasted in our efforts to catch them. A Sierra meadow is much the same as the eastern peatbog and though apparently dry in spots, appearances are deceiving. It is all wet collecting. Wood-fungi, *Pisidium*s, *Physas* and land shells were found under the same sticks and all apparently thriving in the wetness.

Nevada is more upon the plan of Arizona and Utah. Shells were found plentiful at timber line under stone and decaying vegetation. As to moisture and cover the Sierra Nevada is favorable to snail growth, travel, distribution. Simply, it seems one of those situations where the large snails had never been—never settled. The collections for the season were identified by Dr. H. A. Pilsbry and myself jointly as follows :

[All stations are within Tulare county, California except when otherwise noted.]

Epiphragmophora callistoderma n. sp. Kern River, 2 miles N. of Bakersfield, Tulare Co., Cal.

Oreohelix handi n. sp. Smaller and thinner than *O. hemphilli*. Charleston Mt., Lincoln Co., Nev. This and the preceding species will be described in the next number.

Epiphragmophora (Helminthoglypta) tudiculata (Binn.), var. Panther Creek, Giant Forest, Tulare Co. A single dead specimen of a small, compact race, not agree closely with any of the named forms of *tudiculata*.

Pupilla sonora St., var. Charleston Mt., Lincoln Co., Nevada.

Gastrocopa pilsbryana St., same locality.

Vertigo modesta parietalis Anc., Rae Lake.

Vertigo modesta castanea St., Bubbs Creek Falls, mouth of Big Arroyo, Stas. 5, 6, 7 Funston Meadows, Woods Creek, Panther Creek and Ranger in Giant Forest, Onion Valley in Kearsarge Pass, Inyo Co.

Vallonia cyclophorella Anc., Inyo Mts., Inyo Co., Calif., Charleston Mt., Lincoln Co., Nev., mouth of Big Arroyo, Tulare Co.

Vallonia gracilicosta Reinh., First Kern Butt, Funston Meadows.

Agriolimax campestris (Binn.) var. *occidentalis* (Cooper), Spring Brook at Las Vegas, Nev.

Vitrina alaskana Dall, Bubbs Creek Falls, Funston Meadows, Little Kern Lake, First Kern Butte, Rae Lake, forks of Tulle River, Panther Creek, Woods Creek, Mouth of Big Arroyo, Waucoba Springs, Inyo county Calif., Onion Valley, Inyo county, Charleston Mts., Lincoln Co. Nev.

Euconulus fulvus (Drap.), Bubbs Creek Falls, Stas. 5, 6 and 7 Funston Meadows, Woods creek, mouth of Big Arroyo, forks of Tulle River, Waucoba Springs, Hills near Waucoba Springs and Onion Valley in Inyo Co., Calif., and Charleston Mt., Lincoln Co., Nev.

Euconulus chersinellus (Dall.), Forks of the Tulle River, First Kern Butte, Little Kern Lake, Bubbs Creek Falls.

Pyramidula cronkhütei (Newc.), Funston Meadows, Woods Creek, First Kern Butte, Little Kern Lake, mouth of Big Arroyo,

Bubbs Creek Falls, Summit Meadows, Ranger and Panther Creek in Giant Forest, Onion Valley, Inyo Co.

Pyramidula shimcki cockerelli Pils., Tyndall Creek, Tulare Co., Waucoba Springs, Inyo Co.

Punctum californicum Pils., Forks of Tulle River, Little Kern Lake, Bubbs Creek Falls, Onion Valley, Inyo Co.

Succinea stretchiana Bld., First Kern Butte, Stas. 6, 7 and 16 Funston Meadows, Summit Meadow, Giant Forest, Waucoba Springs, Inyo Co. and Charleston Mt., Nev.

The lot comprises a large variety of forms between *arara* and *oregonensis* as well as small specimens that agree with an authentic *S. stretchiana* received from Bland. The Succineas of this region need revision.

Succinea oregonensis Lea, Bakersfield, Big Arroyo and Woods Creek. Also Las Vegas, Lincoln Co., Nevada.

Succinea gabbi Tryon, Tank Springs, Mazuka Canyon, Inyo Co., California.

Physa virginea gabbi Tryon, Bakersfield, Cal., Las Vegas, Nev.

Planorbis traski Lea, (young) Bakersfield, Cal.

Pisidium roperi St., Funston Meadows, Summit Meadow, Onion Valley.

Pisidium rowelli St., Stas. 6 and 7 Funston Meadows, Siliman and Panther Creeks, and Onion Valley.

Pisidium insigne Gabb, First Kern Butte.

MRS. MARIA BALDRIDGE.

We have recently received notice of the death of Mrs. Maria Baldrige of Los Angeles, California, April 7th, in her 82nd year. Mrs. Baldrige was one of the enthusiastic collectors of the Los Angeles group, who up to an advanced age devoted her attention to the shells of California with much success, several additions to the fauna being due to her assiduity and now bear her name. She had an interesting if not large collection, and will be missed by her associates not only for her interest in conchology but for her kindly and cordial character.

W. H. DALL.

PUBLICATIONS RECEIVED.

MOLLUSCA OF AUSTRALIAN ANTARCTIC EXPEDITION, 1911-1914, Scientific Rept. Ser. C. Zoology and Botany, vol. iv, pt. 1, 1916. By C. Hedley. A valuable contribution to our knowledge of